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TAGS: [PREL](#) [PTER](#) [MNUC](#) [KNNP](#) [IS](#)  
SUBJECT: U/S JOSEPH REVIEWS ACTIVITIES OF SOREQ AND NEGEV  
NUCLEAR RESEARCH CENTERS

Classified By: Marc J. Sievers, Acting DCM. Reasons: 1.4 (b)(d).

11. (S) On February 1, Under Secretary Robert Joseph, Assistant Secretary John Rood, DOE/NNSA Deputy Administrator William Tobey, and T Senior Advisor James Timbie visited the Soreq Nuclear Research Center (NRC) to discuss Iran's nuclear program and next steps with Israeli officials from the Israeli Atomic Energy Commission (IAEC) and MFA. While at the Soreq NRC, the U.S. delegation was presented an overview of the activities of the Soreq and Negev NRCs, including joint-research on projects funded under the Technology Support Working Group (TSWG) program. The details follow.  
END SUMMARY.

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BRIEFINGS ON SOREQ AND NEGEV NRC ACTIVITIES  
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12. (S) Dr. Ehud Azoulay presented a briefing on the Soreq Nuclear Research Center's (NRC) activities, underscoring that Soreq NRC is a national nuclear lab, and that it conducts applied research and development in the fields of defense and homeland security. Some of its research is conducted under the Technical Support Working Group (TSWG) -- jointly administered by the Departments of Defense and State -- the Transportation Security Administration (TSA), and the Defense Advanced Research Projects Agency (DARPA). Azoulay noted some of the scientific and technological applications Soreq NRC has perfected in the areas of non-destructive testing, accelerator physics, and radio pharmaceuticals. He noted that the Soreq NRC is currently constructing a state-of-the-art particle accelerator that it will use to develop a new way to detect nitrogen-containing explosives in cargo -- the gamma resonance absorption method. Azoulay said he hopes that the research will result in the development of a system that could be used to check cargo destined for aircraft and trucks. The Soreq NRC is also working on a compact, solid-state gamma camera for nuclear medicine. When the new accelerator reaches its full strength, the Soreq reactor will close and the work of the center will continue using the accelerator as a source of neutrons.

13. (S) Azoulay said that the Soreq NRC is also conducting research on:

-- a TSWG-funded project that uses a laser to calculate for deviation caused by wind, and help a sniper to hit his target at great distances on the first shot;

-- TSWG-funded remote sensor projects;

-- a laser-based defense system to protect civilian aircraft

against man-portable air defense systems;

-- Active Vision Technology to remotely detect weapons and other items that are carried on a person's body; and

-- a magnetic anomaly fence system.

¶4. (S) Professor Eli Abramov from the Nuclear Research Center - Negev (NRCN) reported that NRCN is conducting research on less proliferation-prone nuclear fuel cycle activities. He reviewed the safety upgrades to the NRCN's research reactor, including an earthquake safety system, replacing the reactor's cooling towers, and a new control system. He noted that the replacing of the NRCN's cooling towers involved making the reactor idle; destroying the old towers; and installing new, smaller towers. New technology allows smaller towers with the same cooling capacity. He said the power of the reactor was not being increased. He explained that the work was deliberately planned (destroying the old towers before installing the new ones) so that it could not be misconstrued as an expansion of reactor capacity. Abramov said that NRCN's upgraded reactor will serve as Israel's technology base for a future power reactor for electricity generation.

¶5. (S) Abramov said that the only component that cannot be replaced is the reactor tank. NRCN recently evaluated the lifetime of its aluminum reactor tank, and determined that it is in satisfactory condition. It performed the evaluation using micro-hardness testing, cameras, on-line leak detection, visual inspection, ultra-sonic search for surface defects and material testing.

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